

# Physical Activity Is a Focus for WIC

exas experienced a very mild winter this year, and we were grateful for it as we watched other states suffer from the brutal storms that blew across the nation. The spring and summer months allow us to turn our focus to nature and replenishment, as you can see in this edition of the Texas WIC News. We are encouraging WIC staff and their participants to embrace the outdoors and make an effort to have community involvement with programs centering on outdoor activities. You will read about a community gardening project in Williamson County, and I know of several other WIC Programs that have similar projects. Physical activity has been a focus for WIC for several years now, and more and more evidence is available, as referenced in this issue, supporting the value of getting kids off the couch and away from the television. The Texas Department of Parks and Wildlife has lots of programs for getting children into nature, as you will read in the very first article. If your agency is not currently active in a local project, we challenge you to step up and get involved.

## EBT is DONE!

Now I want to take a moment in my column this month to celebrate the completion of the implementation of the Texas EBT WIC Lone Star Card system across the state. In the last week of April, Hidalgo County had the honor of being the last county transferred to EBT. Throughout the transition, which began in El Paso in the summer of 2004, the state staff continually reported how smoothly it was going, and how all of the field staff were embracing the change and doing a wonderful job in training the participants to use the card.

We spent many long hours of creative planning, discussing how processes would work, buying equipment and installing it, writing policies, preparing materials and training staff and grocery store personnel as we "walked across Texas" with our implementation. A driving force for changing to the EBT system was that it would make the shopping experience better for our WIC participants. Reports indicate that it does!

I cannot state strongly enough how absolutely proud I am of this tremendous accomplishment. We have served our clients well! So please, take a moment to pat yourselves on the back for this very massive and difficult job well done. You have my sincere congratulations and thanks!

From the Texas WIC Director

— Mike Montgomery

Texas WC News

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by Lauren Christian, R.D., L.D., Nutrition Education Consultant

Technology has advanced over the past few decades, and so has a rise in sedentary lifestyles along with physical inactivity. Spontaneous play outdoors in a natural environment has taken a backseat to TV, video games, and computer browsing. Our children may be the first generation ever at risk of having a shorter lifespan than their parents.

pril 2009 was Children and Nature Awareness Month. Enrich your children's lives and the lives of your client's children by encouraging them to discover the nature around them. Playing outside is extremely beneficial for a child's physical and mental development. Remember the feelings of wonder and discovery that you had when you played outside in the woods or a park as a child? Why not encourage your client to give their children the same experience?

## Research finds:

- » 90% of adults who describe themselves as active started their activity between the ages of 5 and 18. (Harris, 2003)
- » Just viewing nature reduces physiological stress response, increases levels of interest and attention, and decreases feelings of fear and anger or aggression. (Kaplan et al.,1989)
- » Children function better than usual after activities in green settings; and, the "greener" a child's play area, the less severe his or her attention deficit symptoms. (Taylor, 2001)

# What is Texas doing?

In 2007, the Texas Parks and Wildlife Department launched a campaign to work on reconnecting our little Texans with nature. Professionals from health, education, state parks, urban planning and media came together to form the Texas Children in Nature Network. Today, the group is coordinating with teachers, communities and schools, and doctors and legislators throughout Texas to improve access and exposure to nature for Texas children. In addition to the network's efforts, state and municipal policies are being passed to connect children with nature. Ideally, parents all over Texas should become familiar with their local "green spaces" including parks, greenbelts, and playgrounds; and get involved in making them safe, as well as encouraging spontaneous play for kids. The main issue is how to reach parents and families throughout the state to deliver the message. Some avenues are pediatrician's offices, obesity clinics, and schools.

The Texas Children in Nature Network is focusing on the following to get children "back to nature" and minimize screen time:

# • Family Nature Clubs -

Whether they have experience with camping and hiking or not, families may soon have access to family nature clubs throughout the

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state. Led by volunteer nature experts, families can enjoy nature and join in group reflections at the end of the experience.

# • Green Ribbon Schools Program -

A new recognition program to focus on the whole child: integrating nature, health and environment. Criteria (to be published Fall 2009) may include mandatory outdoor time during school, classroom recycling program, designated outdoor green environment on school grounds or partnership with local park or green space (for urban schools), community involvement and classroom curriculum integrating environmental education. Stay tuned!

# • Nearby Nature Guides -

A Web site promoted through obesity clinics and pediatrician's offices. The Web site: http://www.nearestnature.org includes links to nearby green spaces and offers tips on outdoor safety, what to pack, outdoor scavenger hunts, and a parks journal for children.

# It's in the research:

The American Academy of Pediatrics encourages children to have unstructured, free play not only for their physical development, but also for their emotional, social, and cognitive development as well. The 2008 Physical Activity Guidelines from the U.S. Department of Health and Human Services advise children to be physically active at least an hour a day through age-appropriate, enjoyable activities such as hiking, bicycling, climbing trees, or going to the park.

Studies show that being outdoors can

- increase levels of physical activity in children,
- reduce childhood stress,
- have a positive effect on mood, mental health and self-esteem,
- aide in healthy childhood development, and
- serve as a coping mechanism for children with attention-deficit disorder.

#### What can I do?

Here are way's to help your children connect with nature this spring and summer:

- Plant something. Have your child write down the plant's progress and what to do to care for it.
- Reuse everyday household materials that wouldotherwise be thrown out to create a mural.
- Create a green space in your yard for your family.

- Start a compost heap.
- Camp under the stars.
- Find a safe place for your family to get some fresh air and explore nature.
- Meet park rangers at a nearby park and have them explain your local ecosystem.
- Get your kids involved with the girl or boy scouts.
- Visit your local farmers' market.
- Take a road trip to the beach.

Some of these tips were adapted from The California Children's Outdoor Bill of Rights.

For families who want to dive in, the Texas Outdoor Family program offers a series of weekend workshops in state parks where families receive hands-on experience learning basic outdoor skills including pitching tents, fire starting and outdoor cooking, and morning and night-time guided talks or tours with park rangers. Check out the website to see the upcoming summer and fall workshops: http://www.tpwd.state.tx.us/outdoorfamily.

Remember, most activities in nature are free and help create a lasting bond between you and your child — so get out there!

#### Resources:

Harris Interactive. November 2003. Outdoor Industry
Association Outready Study. Outdoor Industry Assoc.

Kaplan, R and S. Kaplan. 1989. *The Experience of Nature:* A Psychological Perspective. Cambridge University Press

Taylor, et al. January 2001. Coping with ADD: The Surprising Connection to Green Play Settings. Environment and Behavior. 33(1): 54-77

Louv, Richard. 2008 second edition. Last Child in the Woods. Saving Our Children From Nature Deficit Disorder. Outdoor advocate includes a user's guide for parents and caregivers. Algonquin Books of Chapel Hill.

Texas Outdoor Family program http://www.tpwd.state. tx.us/outdoorfamily

Interactive Web site for kids with nature and wildlife-related games and activities http://www.tpwd.state.tx.us/kids/

Links to nearby green spaces, tips on outdoor safety, what to pack, outdoor scavenger hunts and a parks journal for children http://www.nearestnature.org

Environmental Education week, link to green reading for kids http://www.eeweek.org/resources/green\_reading.htm

National Environmental Education Foundation http://www.neefusa.org/health/children\_nature.htm

2008 Physical Activity Guidelines http://www.health.gov/ PAGuidelines/guidelines/default.aspx

Houston Wilderness has an online map and their passport for children and families to get stamped at participating sites <a href="http://houstonwilderness.org/infostore/sitefindersearch.asp?ID=141">http://houstonwilderness.org/infostore/sitefindersearch.asp?ID=141</a>

National Wildlife Federation's nearest nature tool that uses zip codes to locate the closest green space. http://greenhour.org/section/about/tools/naturefind/



# Encouraging Healthy Habits through Community Gardening

by Shirley Ellis, M.S., R.D. Clinic Services Program Coordinator

The Williamson County and Cities Health District WIC program has found a unique way for promoting healthy lifestyle choices by getting participants involved in community gardening. A community garden is a piece of land gardened by a group of people. The gardens provide access to fresh fruits and vegetables, neighborhood improvement, a sense of community and a connection to the environment. Most community gardens are publicly funded and are found in rural and urban areas. There are an estimated 18,000 community gardens in the United States and Canada and one of them is in Williamson County, Texas.

As one of the Texas WIC Obesity Prevention projects, the Williamson County and Cities Health District WIC program is fortunate to have the assistance of horticulturist Natalie Vreeland. Vreeland is responsible for maintaining the Williamson County Community Gardens. The gardens provide a unique opportunity to combine physical activity, access to fresh fruits and vegetables, social interaction, and neighborhood beautification — all activities that are enjoyable and beneficial to our WIC clients.

Participants in the Williamson County WIC program are provided the opportunity to have free garden plots in the community garden as well as seeds and access to water. According to WIC director Tina Horkey, several WIC families have taken advantage of this opportunity.

Texas Wiews



published in the Journal of the American Dietetic Association found that young children who were exposed to garden-based nutrition programs had an increased willingness to taste fruits and vegetables.

WIC families do not need a garden plot to get involved and learn more about gardens. Gardening can be done anywhere using pots and containers of all sizes. A container garden on a balcony, patio or deck can produce a lot of vegetables. Children can be encouraged to start plants indoors using recyclable containers like large soup cans, egg cartons, and yogurt or cottage cheese containers, and half gallon milk containers.

If container gardening is not an option, then children can learn about gardening in other ways. Families can be encouraged to

read books about gardening. Several of the reading lessons recommended for local agencies incorporate the use of garden related books. For example, *Eating the Alphabet: Fruits and Vegetables from A to Z* by Lois Ehlert teaches children about a variety of fruits and vegetables. *Tops & Bottoms* by Janet Stevens teaches children about vegetables that grow above the ground and those that grow below ground, and *Oliver's Vegetables* by Vivian French encourages children to experience new vegetables by sight, touch, and taste.

WIC has always promoted the importance of consuming fruits and vegetables and in just a few months these items will be part of the WIC food package. Now is the time to offer participants innovative ideas for consuming fruits and vegetables. Gardening is also a fun way to increased physical activity. For more information about community gardening visit the American Community Gardening Association's Web site at http://community-garden.org//.

Vreeland maintains a garden with seasonal annuals, pansies, violas and snapdragons.

Vreeland works in coordination with registered dietitian Liz Keith offering cooking and nutrition classes. The cooking series called "From the Garden to the Table"

In addition to supervising the community garden, Vreeland also maintains several garden plots around

her office. In February those plots were blooming with

broccoli, cauliflower, Swiss chard, spinach, arugula,

radishes. The bounty from this garden is often used

Brussels sprouts, kale, cabbage, mustard greens, and

in WIC cooking classes. In addition to the vegetables,

cooking series called "From the Garden to the Table" offers county residents the opportunity to learn how to prepare delicious, inexpensive, and time-saving meals as well as encouraging them to get involved in the community gardens. WIC participants are encouraged to attend the series and can do so in place of attending nutrition education classes at WIC.

One benefit of WIC families taking part in community gardening is the inclusion of children in the process. Children love to garden, and gardening can teach them many important concepts such as patience and responsibility. Also, children tend to eat what they grow. In fact, gardening has been shown to increase children's consumption of fruits and vegetables. A recent review

#### Reference:

Robinson-O'Brien, Ramona, Mary Story, and Stephanie Heim. February 2009. Impact of Garden-Based Youth Nutrition Intervention Programs: A Review. *Journal of the American Dietetic Association*. 109(2):273-280

# Putting a face on

# "Green" Emisine:



by Elizabeth Bruns, R.D., L.D. Training Specialist

ommonly used terms like "going green" and "reducing our carbon footprint" refer to making choices that are environmentally-friendly. Such choices can be applied to all areas of our lives, including our diets and the foods we eat.

# **A Low-Carbon Food Diet**

The primary tenets of an environmentally-friendly low-carbon food diet include eating:

- more plant foods and less animal foods,
- more locally grown foods,
- · more organically grown foods, and
- less processed foods.

# **Locally Grown Food**

Locally grown food is more environmentally friendly than foods grown further away because less energy is required to transport the food from farm to market. For example, fewer resources are used to ship citrus from south Texas to market in Texas, than from the west coast or the southern hemisphere. This practice lessens your carbon footprint and provides you with fruits and vegetables that are fresher and less expensive.

Texas Wews

It's not always easy being green. Do you know which fruits and vegetables are grown in your region of the state? And do you know when certain produce is in season? And when it's not? It might take a little research to find the answers to these questions. To get a head start, check out the following web sites for information on locating locally grown fruits and vegetables and seasonal availability in Texas.

http://www.pickTexas.com http://www.GoTexan.org

http://www. Texas Certified Farmers Markets.

com

http://www.TexasProduceAssociation.com

# **Organically Grown Foods**

Fruits and vegetables grown without the use of chemical and synthetic fertilizers, pesticides, and herbicides are organically grown. Organic growers use natural materials and renewable farming methods instead of spraying and dusting crops. They typically till the earth more than conventional farmers because tilling will reduce unwanted weeds. Organic farmers are more likely to practice crop rotation and use natural fertilizers such as manure, hummus, seaweed, and fish emulsion.

According to Michael Pollan in his book, *The Omnivore's Dilemma*, more and more people are choosing to limit their exposure to chemicals when possible. Pollan says that consuming organic in place of conventional produce will reduce one's intake of chemicals by two-thirds.

#### **Processed Foods**

Processing tends to increase a foods' content of fat, sugar, and salt, at the same time it decreases fiber content. For example, consider a raw apple and its fiber content compared to calorically similar amounts of processed apple products such as applesauce and apple juice. One medium raw apple provides approximately 3.25 grams of fiber; a half-cup serving of applesauce provides 1.5 grams; and a ¾ cup serving of apple juice provides only 0.33 grams.

Processing uses energy and creates artificial packaging. Again, consider the apple. In processing, the natural packaging, the peel, has been removed. Resources must now be used to package the processed apple products in glass jars, tin cans, or plastic bottles.

A tip to help lessen your exposure to processed foods at grocery stores is to primarily shop the perimeter of the stores. In general, around the perimeter you will find fresh produce, dairy goods, and more foods in their natural state. Processed foods are aisle foods. To shop "green," go down aisles to pick up only the specific items you need.

### **What You Can Do**

Plan your meals to include more environmentally-friendly, locally grown, fruits and vegetables. Lessen your carbon footprint one step, or one meal at a time.

# References:

Berthold-Bond, Annie. 1997. *The Green Kitchen Handbook*. HarperCollins Publishers, Inc., New York. NY

Pollan, Michael. 2006. *The Omnivore's Dilemma*. Robbins, John. 1987. *Diet for a New America*. Stillpoint Publishing, Walpole, NH



# exceptional customer service



by Linda Brumble, M.A., B.S. Unit Manager, NECS

he 1964 Walt Disney film, *Mary Poppins*, about a nanny who comes to live with and take care of the Banks' children, illustrates many good customer service techniques that we can transfer to our jobs.

Mary is imaginative. She takes problems and solves them in creative ways. Using the contents of her bottomless carpetbag, she makes the furnishings in the children's room come to life to help them tidy the room. She makes unpleasant things more palatable — like when she uses a "spoonful of sugar" to help the medicine go down. Mary and her friend Bert take the children on several fun outings, or "jolly holidays," to the country, and she uses laughter and humor often. In fact, on an outing to her Uncle Albert's, they tell jokes and float to the ceiling because they are laughing so hard. Mary is firm, but also kind and gentle, and she displays outstanding organizational skills and knowledge about being a nanny. She gets Mr.

Banks to talk to his children on their level and becomes interested in them and their activities.

In our clinics, we don't have a "bottomless carpetbag" out of which to produce magical equipment to help us clean up. But we do have creativity, and can decorate our walls and floors and trash cans. We can put things in their place when we are through using them and can create processes to help us clean up our messes as they are made.

Many unpleasant clinic tasks can be made more palatable with a "spoonful of sugar." Many clinics use stickers or stamps to give to children who've just had their finger pricked. Arrows line the floor to show the way to the bathroom and the screening rooms. Waiting rooms have videos and toys for children. CA's keep kids occupied with interactive toys and games in their offices.

While I'm hoping no one floats to the ceiling in your clinic, I do hope you hear the sound of laughter a lot. Days when it's hard to laugh because things are busy are often the best time to be sure smiling and laughing occur. Take a minute to think of a joke you enjoy, like the one they told in Mary Poppins:

"I once knew a man with a wooden leg named Smith."

"Oh, really? What was the name of his other leg?" Find a stress-relieving technique that works for you. If you are cheerful, you will pass that along to your clients.

Finally, like Mary, be kind and gentle, but firm in assuring that all WIC rules are followed. Know the rules so you don't have to guess. Get your clinic organized so clients come and go in an hour or less. Talk to all clients, not just the children, on their level and in accordance with VENA. Become interested in them and their activities and concerns. Your clinic may not be, like Mary — "practically perfect in every way" — but it will most certainly be "SuperWICifragilisticexpialidocious"!

Mary Poppins (1964)
Mary Poppins (1964) Memorable Quotes
http://en.wikipedia.org/wiki/Mary\_Poppins\_(film)

Texas Wews

# WIC Wellness Works

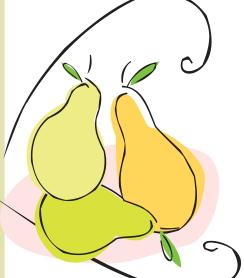
This Fall WIC clients will be asked to change their eating habits. Will you have changed yours?

Fast forward to October 2009: A returning WIC client is sitting at your desk and you are aptly telling them about all the wonderful features of the new food package — fresh fruits and vegetables, lower fat milk choices, and 100% whole grains. As you are sharing this information, you may ask yourself, "Am I Walking this Talk?"

- Can I speak from experience about changing my food choices?
- Am I eating 100% whole grains most of the time?
- How many fruits and vegetables did I really eat today?
- And when I have milk, is it 1% or fat free?

If you are feeling uncomfortable because you haven't made some of these new food changes yourself, have no fear; you're time is here. Making healthy food choices is something to reach for every day. According to the American Heart Association, healthy food habits can help you:

- reach a desirable blood cholesterol level,
- maintain a normal blood pressure,
- achieve and maintain a healthy body weight, and
- reduce your risk of stroke and heart disease.



Healthier food choices can lead to feeling better, having more energy, being more mentally alert as we grow older and maybe having a stronger immune system. And yet, change can still be difficult.

- Believe your reasons: Reflect on why you want to change. Decide what is important to you and why you want to change to your habits.
- Package your plan: List ideas of how you hope to achieve each food goal. Be specific.
- Track your progress: Use a calendar, a notebook, or a journal to physically write down how you are doing and how you are feeling about it.
- Celebrate: Reward yourself for your progress. Be happy for what you are achieving but at the same time don't feel guilty if you aren't where you want to be. Just try again.



# Wellness...a journey







Try these simple steps and soon you will be able to share personal stories of success and challenges with your WIC clients. Set goals, write them down, and make them simple and easy to measure so you can carry them out for a day, a week, and a month.

# Milk — Moove to low fat to see how low you can go

Whether you are a regular milk drinker or just use it in your coffee or baking, consider making all your milk choices low fat or fat free. Check out the fat content and calorie differences among all the milk options!

Try these *switching tips* to low fat milk:

- Host your own taste test with family members.
- Mix low fat milk with whole or reduced fat milk. Over a few weeks, keep mixing the milk with the lower fat option until you are drinking only 1% or fat free milk.
- Use low fat milk and dairy products while cooking.

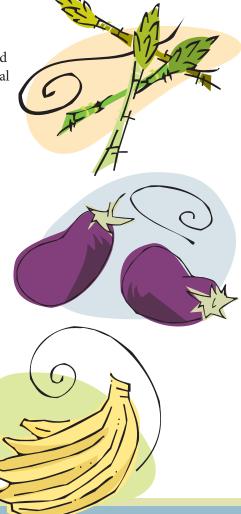
Whole Milk	8 grams of fat	150 calories
Reduced Fat 2%	5 grams of fat	120 calories
Low-Fat 1%	2 grams of fat	100 calories
Skim Milk 0%	0 grams of fat	85 calories
* 8 oz glass of n	nilk	

# **Color Your Way to More Fruits and Vegetables**

A growing body of research shows that fruits and vegetables are critical to promoting good health. To get the amount that is recommended, most people need to increase the amount of fruits and vegetables they currently consume. The general recommendation is to eat at least three cups of vegetables and two cups of fruit a day.

Eating a colorful variety of fruits and vegetables provides a range of vitamins, minerals, fiber, and phytochemicals that your body uses to maintain a healthy weight and reduces the risk of disease and some cancers. Consider these ideas to help you increase your daily fruits and vegetables intake:

- Keep fresh fruit on your desk at work.
- Add chopped vegetables to pasta sauce or lasagna.
- Order a veggie pizza with toppings like mushrooms, green peppers, onions, and jalapeños.
- Keep a bowl of cut-up vegetables, like broccoli, cauliflower, cucumber, or red pepper strips in a see-through container in the refrigerator.
- Try one new fruit or vegetable every month.
- Buy dried, frozen, canned and fresh fruits, so that you always have a supply on hand.
- Top your cereal and pancakes with bananas, berries, peaches or blueberries.
- Bake banana, carrot, or zucchini bread.
- Have baked apples, pears, or a fruit salad for dessert.



# Wellness...a journe,







# Go With the Grain - Be 100%!

What are whole grains? They are rice, pastas, breads, and cereals made from 100% whole grain and not with processed flours. To make sure you are eating a product that is made with 100% whole grain, become a label reader. The first ingredient should say whole wheat or whole grain. If the label reads enriched, or processed, it isn't 100%.

The essential nutrients from 100% whole grains have many benefits including promoting a healthy heart, reducing risk of certain cancers, keeping the digestive track running smoothly, and playing a role in diabetes management.

Try these *switching tips* to go with the grain:

- Host a taste test.
- Gradually mix whole wheat pasta with your

traditional pasta meals until you can serve pasta that is all whole wheat pasta.

- Gradually mix brown rice with your white rice meals until you can serve rice that is all brown.
- Use whole wheat for all bread options (tortillas, hamburger buns).

Make the changes gradually. Use the chart below to see how you can move your food choices to go with the grain. Circle the food items you are currently eating

and consider moving your choice to the next column. Your goal is to eat foods in the 'always' column.



Food	Rarely	Sometimes	Always
Tortilla	Fried tortilla chips	Flour tortilla	Corn tortilla or whole-wheat tortillas
Bread	White	Bread made with $1\!\!/_{\!2}$ white and $1\!\!/_{\!2}$ whole-wheat flour	100% whole-wheat bread
Dry cereal	Sugar sweetened	Unsweetened cereal	100% whole-grain, unsweetened cereal
Pasta	Traditional pasta	1/2 white and 1/2 wheat pasta	100% whole-wheat
Rice	White rice	Mix of 1/2 white and 1/2 brown rice	Brown rice

# recipe

# Summer Treat - Strawberry Yogurt Popsicles

# *Ingredients:*

1 pint fresh strawberries, stems removed

2 tablespoons sugar dissolved in 2 tablespoons warm water

1 6-ounce container fat-free plain or vanilla yogurt



Preparation: Place strawberries in a food processor or blender and pulse until not quite pureed. Stir in sugar, water, and yogurt. Pour into 3-ounce paper cups. Cover the top of the cup with foil wrap, and poke a popsicle stick into it and freeze for 4 to 6 hours. Makes about six 3 ounce popsicles.

Per Popsicle: Calories 58, Calories from Fat 3, Total Fat 0.4g (sat 0g), Cholesterol 0mg, Sodium 23mg, Fiber 11.7g, Protein 2.1g

# Wellness...a journey







# **Walking to Wellness in Jacksonville**

WIC Wellness Works Coordinator and Breastfeeding Peer Counselor in Jacksonville (39-02), Alicia Oliver, recently called the WIC Wellness Works program because they had played their *Walk Away the Pounds* DVD so many times, it had worn out! Jacksonville WIC joined the wellness program in November 2006 because they wanted to start "walking the talk." Since then, three members of the staff have collectively walked their way to losing over 100 pounds. They credit their success, in part, to the walking DVD and the pedometers provided by the WIC Wellness Works program. But it is really their attitude and commitment to wellness that has taken them this far.

The seven team members (Alicia, Charla, Rachel, Rosa, Tyronica, Stephanie, and Vickie) at the clinic set individual goals of reaching 10,000 steps every day before they leave work, and they accomplish this in a number of ways. Every morning, either Alicia or Charla (the clinic manager) arrive at the clinic early to set up the classrooms. When the other employees arrive, they have time to do the Walk Away the Pounds DVD for 20 minutes before seeing clients. At lunch they try to do several miles with the DVD, and on Fridays they try to walk with the video for half an hour after work. Alicia has noticed not only is everyone losing weight, but exercising with the walking video also helps to lower stress. It has "been really fun to do together and share – it has really helped build camaraderie," Alicia explained. They have even purchased more videos on their own that they bring in and share with each other to keep their motivation up.

According to Alicia, the wellness program has been an integral part of helping new employees feel welcome at the clinic. At first new breastfeeding peer counselor, Rosa, found everyone walking together a bit odd. After seeing how much fun everyone was having and participating in one of the clinic's many "Build a Salad" days, she decided to join the program

and join the fun. Alicia says the WIC Wellness Works program has helped promote better personal relationships through physical activity. Improving the personal relationships among the staff has helped to improve their working relationships. Those participating in the wellness program occasionally go out with each other and their families outside of work to celebrate meeting their goals.

One key to their successful program has been their attitude. They have not approached the program as a way to lose weight, but rather a way to simply be healthy. Alicia says sometimes they "fall off the wagon" such as recently when they went through the EBT transition at their clinic. Though they did not get to walk as often as they would have liked, they weren't worried. They knew that "as long as we're in this together, life happens - we come back and forth without feeling failure - there is no failure in it!" They are now walking again on a regular basis. By maintaining a positive attitude, the clinic staff has been able to overcome a great deal of change at work, and has been able to keep everyone active and healthy. This positive attitude, combined with their successful wellness program has not only helped them build healthier bodies, but also a healthy working environment. Way to go WIC 39-02!



The WIC staff at clinic 39-02 in Jacksonville are committed to wellness.

# why vitamin D recommendations are undergoing change

by Roxanne Robison, R.D., L.D. CSHCN Nutrition Consultant

Vitamin D has been a hot topic over the past few years and by all indications, will continue to be for some time. The Institute of Medicine, which has assigned a Food and Nutrition Board committee to set Dietary Reference Intakes (DRI) for vitamin D and calcium, should have new recommendations by next summer. In 2003, the American Academy of Pediatrics (AAP) recommended all infants, children and adolescents receive 200 IU of supplemental vitamin D beginning at 2 months of age and continuing through adolescence, if not provided by dietary sources. Since that time, rickets, which is an extreme form of vitamin D deficiency, continues to be reported. This prompted the AAP to reexamine the recommendations and last year doubled previous recommendations to 400 IU per day, starting within the first few days of life and continuing through adolescence unless that amount is consistently consumed from dietary sources. An article published in Pediatrics (2008; 122; 398-417), extensively reviews possible reasons why vitamin D deficiency continues to be a problem.

Vitamin D deficiency may be more widespread than researchers previously believed, in part because new data suggest that current norms for what has been considered sufficient vitamin D status may be too low. In addition, there are many subgroups of the population that are at particularly high risk for vitamin D deficiency. This article reviews highlights of why vitamin D recommendations are undergoing change in the pediatric population.

# The Importance of Vitamin D

Rickets is a condition that happens when growing bone and cartilage fails to mineralize, as evidenced by x-ray. Vitamin D prevents rickets

by helping the body absorb calcium. Calcium absorption can reach 60 to 80 percent during periods of rapid growth, but with vitamin D deficiency, the absorption rate may decrease to only about 10 to 15 percent. Low calcium absorption also causes phosphorus, another mineral important for bone mineralization, to be lost in urine.

Vitamin D deficiency occurs well before the development of rickets and can cause irritability, delay in gross motor development, bone pain, delayed tooth eruption, increased risk for dental caries, poor growth, increased susceptibility to infections and sometimes seizures caused by low serum calcium levels. Rickets is a late and obvious sign of vitamin D deficiency.

In addition to the importance of vitamin D in calcium absorption, there are indications that it may have other equally important functions. Vitamin D receptors have been identified in most organs in the body such as the brain, heart, skin, gonads, prostate and breast. The importance of these receptors are not fully known, but vitamin D has been associated with having positive effects on the immune system and the prevention of certain cancers, including breast and colon cancer. Vitamin D has also been associated with a decreased risk of schizophrenia, bipolar disorder, type I and type II diabetes and multiple sclerosis. Long-term studies are needed to conclusively determine if vitamin D can effectively prevent or treat any or all of

these conditions. What is known for certain is

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# why vitamin D recommendations are undergoing change

(Continued from page 11) that chronic vitamin D deficiency can lead to osteopenia and osteoporosis in adults.

# **Sources of Vitamin D**

# Sun exposure

For most people, ninety percent of vitamin D is derived from synthesis of the vitamin in the skin, which occurs when skin is exposed to ultraviolet B (UV-B) radiation from the sun. Since darker skin contains more natural sunscreen than pale skin, darker skinned people require a longer exposure to the sun for sufficient vitamin D production. In addition, the time of day that sun exposure occurs is important as well as geographical latitude. The only time that enough UV-B rays can produce vitamin D in the skin is between 10 a.m. and 3 p.m. in the spring, summer and fall. Little vitamin D is produced earlier or later in the day even in summer months. Sun exposure during peak hours for 4 to 10 minutes for pale-skinned people and 60 to 80 minutes for dark-skinned people is estimated to release 10,000 to 20,000 IU of vitamin D into circulation, although this is not easily determined for a given individual. Elderly people, for example, produce far less vitamin D in their skin, as this capacity decreases with age. The degree of geographical latitude, working indoors at peak UV-B times, the amount of air pollution, the amount of cloud cover and the amount of clothing worn affects the amount of UV-B exposure and vitamin D production.

But, the American Academy of Dermatol-



ogy recommends avoiding sun exposure during times when peak vitamin D is produced to prevent skin cancer and the AAP recommends that infants younger than 6 months be kept out of direct sunlight. Sunscreen with a sun protection factor (SPF) of 8 can decrease vitamin D synthesis by 95 percent, and SPF 15 can decrease it by 98 percent, when used properly. Shade reduces production by 60 percent.



### **Food Sources**

Ten percent of the average person's vitamin D intake comes from food. Natural sources of vitamin D include oily fish such as salmon, mackerel and sardines, liver, organ meats, and egg yolks. Frying foods reduces active vitamin D by 50 percent,

whereas baking does not affect vitamin D content. Table 1 indicates the vitamin D content of selected foods.

The vitamin D content of natural foods varies depending on the season and climate conditions. Surveys of fortified milk at various dairies have found that many samples are not in compliance with fortification amounts listed on labels and that these are mostly under-fortified.

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Food Vitamin D, IU

Fortified: cow's milk, infant formula, soy milk, rice milk, and orange juice, one cup	100
Margarine, fortified, 1 tablespoon	60
Egg yolk, one, from chickens fed vitamin D	20-25
Cooked salmon/mackerel, 3½ ounces	345-360
Shrimp, 3½ ounces	152
Cod liver oil, 1 tablespoon	1360
Non-radiated, dried shitake mushrooms, 3½ ounces*	1660

<sup>\*</sup>Plant sources contain vitamin D2, which has about 1/3 the potency of vitamin D3, which comes from animal sources. Milk and beverages are usually fortified with D3. Most children's vitamins contain D2, with the exception of liquid vitamins for infants.

# **Vitamin D during Pregnancy**

Vitamin D status of pregnant women is thought to effect fetal growth and development. Vitamin D deficient mothers have lower birth weight infants. Vitamin D may also be a factor in postpartum depression. One study showed reduced bone mass at 9 years of age in children who were born to vitamin D deficient mothers. There is no consensus as to the optimal amount of vitamin D needed during pregnancy, but there are indications that standard prenatal vitamins may not provide enough.

#### Vitamin D for the Breastfed Infant

The vitamin D content of breastmilk depends on the vitamin D status of the mother. Even in mothers who are sufficiently nourished with vitamin D, the average vitamin D intake for an exclusively breastfed infant consuming 25 ounces of breastmilk a day is estimated to be about 11 to 38 IU a day, far less than the currently recommended 400 IU a day. Review of clinical cases indicates that most of the children who developed rickets were breastfed or followed a vegetarian diet and did not drink milk.

According to new recommendations, all breast-fed infants should be given a supplement of 400 IU vitamin D beginning within the first few days of life and continuing through adolescents.

# Vitamin D for the Formula-Fed Infant

Rickets has been reported in infants who were fed formula. These infants had mothers who were vitamin D deficient during pregnancy and therefore insufficient vitamin D was transferred to the baby before birth. The vitamin D content of formula was not enough to compensate for low stores at birth.

Formula-fed infants, who were not vitamin D deficient at birth, need to be given a supplement until at least one quart of formula is consumed every day, to meet the new recommended amounts.

Since vitamin D is transferred to the infant through the placenta, mostly during the last trimester, infants who are born prematurely are born with low vitamin D stores and are at particularly high risk whether they are breast or formula-fed.

# Vitamin D and Children with Special Health Care Needs

Children with disabilities who rarely spend time outside may not receive adequate vitamin D. Children who take certain anticonvulsant medication, which causes an increase in the turnover of vitamin D and children who take steroids, like Prednisone, to control asthma are at risk.

Children who have diseases which interfere with fat absorption such as cystic fibrosis, short bowel disease, Crohns disease, celiac disease, and certain disorders of the liver are also at risk since a certain amount of fat is needed to absorb vitamin D.

Infants and children who fall into one of these groups may need supplementation beyond 400 IU a day and adequacy of the supplementation should be determined by laboratory testing.

Physical Activity Guidelines for Infants and Toddlers

by Carlos R. Galvan
Nutrition Education Consultant

participants advice and direction on how they can improve their child's food intake, but are we including guidelines or advice on physical activity? Physical activity is an important component to total fitness that sometimes gets set aside or ignored. According to the U.S. Surgeon General, the number of children and adolescents who are overweight and obese has tripled in the last 20 years. So it is important that we are prepared with ideas, suggestions, or advice for participants and their families to include daily physical activity in their lives.

Confining infants and young children to cribs, car seats, playpens, and strollers more than necessary may delay development of much needed skills such as rolling over, crawling, and even some cognitive developments. It is believed that these restrictions begin the path to sedentary preferences and even childhood obesity. There are many benefits that come from children participating in daily physical activity.

Some of the long-term benefits include:

- social interaction, cooperation, sharing, self esteem, self confidence;
- development of motor skills and hand-eye coordination;
- body composition, strength, and power development; and
- increased likelihood of being a physically active adult.

An excellent reference tool or resource for physical activity has been developed by the National Association for Sport and Physical Education (NASPE). The association developed recommendations for infants, toddlers and preschool age children. The guidelines for each group are intended to answer questions about the kind of physical activity, the environment and the individuals responsible for facilitating the activity. Dr. Jane Clark, professor and Chair of both the Department of Kinesiology at the University of Maryland and the NASPE Early Childhood Physical Activity Task Force, relays an important point: "Promoting and foster-

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ing enjoyment of movement and motor skill confidence and competence at an early age will help to ensure healthy development and later participation in physical activity." We will look at both age groups and review the five recommendations the NASPE has for each.

# **Guidelines for Infants**

Infants should be encouraged to be physically active from the beginning of life. Part of the infant's day should be spent with a parent or caregiver who can provide opportunity for planned physical activities. The experience should incorporate a variety of games and sessions in which the child is held, rocked and carried to new environments. Let's look at the NASPE guidelines for infants.

- Infants should interact with parents or caregivers in daily physical activities that are dedicated to promoting the exploration of their environment.
- 2. Infants should be placed in safe settings that facilitate physical activity and do not restrict movement for prolonged periods of time.
- 3. Infants' physical activity should promote the development of movement skills.
- 4. Infants should have an environment that meets or exceeds recommended safety standards for performing large muscle activities.
- 5. Individuals responsible for the well-being of infants should be aware of the importance of physical activity and facilitate the child's movement skills.

#### **Guidelines for Toddlers and Preschoolers**

For toddlers, basic movement skills such as running, jumping, throwing, and kicking do not just appear because a child grows older, but emerge from an interaction between hereditary potential and movement experiences. These behaviors are also influenced by their environment. For instance, a child who does not have access to stairs may be delayed in stair climbing. Further, a child who is discouraged from bouncing and chasing balls may lag in hand-eye coordination. Let's look at the NASPE guidelines for toddlers and preschoolers.

1. Toddlers should accumulate at least 30

- minutes daily of structured physical activity; preschoolers at least 60 minutes.
- 2. Toddlers and preschoolers should engage in at least 60 minutes and up to several hours of daily, unstructured physical activity and should not be sedentary for more than 60 minutes at a time except when sleeping.
- Toddlers should develop movement skills that are building blocks for more complex movement tasks; preschoolers should develop competence in movement skills that are building blocks for more complex movement tasks.
- 4. Toddlers and preschoolers should have indoor and outdoor areas that meet or exceed recommended safety standards for performing large muscle activities.
- 5. Individuals responsible for the well-being of toddlers and preschoolers should be aware of the importance of physical activity and facilitate the child's movement.

Did you ever think that there was this much information on physical activity, especially for infants and children? These recommendations are being relayed to parents, caregivers, and professionals alike. Research has found that there is a link between being physically active from the beginning of life and the level of physical activity as an adult. Preschool age children and infants should be encouraged to practice movement skills in a variety of activities and settings. This is important so the children develop the skills that they will need when they enter school. This will also aid in turning the tide on the increase of sedentary lifestyles and the decrease of physical activity.

Obesity is a major health problem in children and adolescents, so the key is prevention. We readily give parents advice on how to help their children eat better diets, now we can give them some ideas about what they can do as far as physical activity. If we are to decrease or stop the growing wave of obesity from continuing, we must educate our participants so that we alter their lifestyles to promote physical activity and minimize sedentary lifestyles.

#### Reference:

National Association for Sport and Physical Education at http://www.aahperd.org/naspe/

# local agency spotlight



since 2004, Collin County's neediest have benefited from WIC director Michelle Patrick's unique skills in public health and statistics.

Her knack for strategic planning, program evaluation, and policy development, makes her the "go to" person for all non-profits in the county.

"I've built that relationship over the years — if folks are looking for information I know where to find it," she said. "I've been able to help nonprofits get the funds they need to reach the neediest in Collin County."

She began her career as a grant development

officer to attract funds for non-profits in Collin County, so she knows the area. Now she has a chance to apply that experience to her current WIC director position. She also volunteers as vice chair of the Community Needs Assessment committee for the United Way for the North Texas region, the North Texas Council of Governments Criminal Justice Policy Committee, and as a Board Member for Hope's Door the county's domestic violence shelter.

"I've always been kind of a data geek, using data for program planning and decision making," she said. "I'm in an awesome situation right now, because I'm able to see how WIC impacts all the non-profits in our counties — it's a pretty neat job to have," she said.

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Sometimes the information requires more exploration.

"If you have clients living in high-economic areas, that makes you start wondering, 'Why are they there,'" she said. "Is it because they are living in an apartment complex or with other family members 'What's going on with this?'"

Other times statistics provide direction or help justify changing a clinic location or hours of operation based on the population needs in the county.

"If you map out all your clients and try to figure out why this person is traveling to this clinic, you might ask, 'What if I opened up more hours here? Would it make it easier to come to a clinic that's closer to their home?" she said. "In September 2007, we needed to decide whether to renew our lease in a little house in Frisco or move to a larger, more accessible location."

Her research results prompted her to open clinic #4 in Frisco. She uses many resources to help her decision-making, including Geographic Information Systems (GIS) and U.S. Census data. Tracking clients and looking at poverty levels and other data help her planning process.

"We decided that a larger clinic could be supported in Frisco and by January 2008 we

opened a new clinic. The latest GIS map shows participants are now traveling to the closer Frisco office than to another office across county," she said. "I am also keeping an eye on whether it is time to open up a new clinic in the northern part of the county."

Patrick is interested in examining the poverty levels and looking for ways to create new services if needs continue to rise for a county in transition.

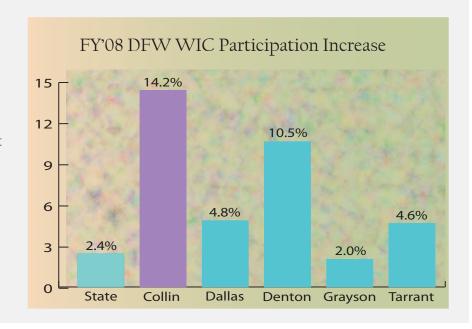
"It's fascinating to me, to overlay a map with levels of poverty in the county," she said. And what you should see is the areas with your greatest poverty should have the greater number of participants," she said.

The Collin County clinic serves more than 11,000 clients per month of the county's eligible population.

"We've seen a 14.2% increase from last year, which is pretty amazing," she said. "We're still trying to figure out what's happening. When you're living in one of the wealthiest counties in the country with one of the highest median family incomes — we need to know what's going on here with increases like that."

Other WIC clinics may be able to benefit from Patrick's curiosity and skill in researching populations in need.

"Michelle has been a real asset to the WIC program since she joined us a couple of years ago," said Patti Fitch, Clinic Services Branch manager. "I am excited that she has agreed to share some of her process with other WIC directors by offering an IDL training on using GIS and other data to make program decisions. We hope to see an increase in serving our potential eligibles once some of our other local agency directors have had a chance to employ the tools she uses."



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# Hello everybody!

by Eaton Wright, BS, NUT **Nutrition Expert** 

Eaton here with a brand new Test Your *Green Thumb IQ.* Few people take the time to think about how fresh food gets from the farm to the table. Now that a new food package, which includes fresh fruits and vegetables, is just around the corner, Eaton's decided to quiz y'all on your green thumb.

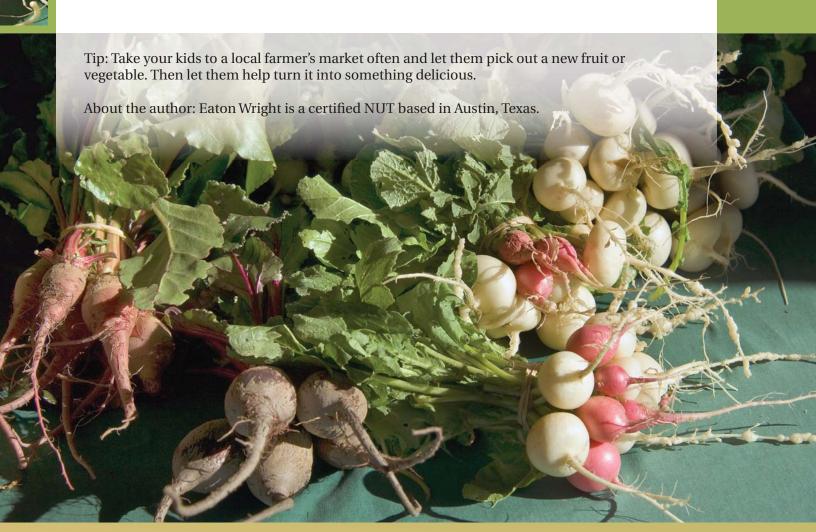


# Quiz:

- 1. Of the following choices, the freshest fruits and vegetables available to Texans come from:
  - a. Two Egg, Florida
  - b. Bacon, Indiana
  - c. Buttermilk, Kansas
  - d. Oatmeal, Texas
  - e. Hot Coffee, Mississippi
- 2. True or False. All bugs in your garden are pests.
- 3. Which of the following ordinary items will make your garden grow greener?
  - a. Coffee grounds/tea bags
  - b. Grass clippings
  - c. Egg shells
  - d. Vegetable and fruit leftovers
  - e. Dead leaves
  - f. All of the above
- 4. True or False. You need a big backyard to have a garden.

# **Answers:**

- 1. The answer is d. While Oatmeal, Texas, is better known for the annual Oatmeal Festival (held every Labor Day weekend since 1978) and not produce, the truth is that the closer a fruit or vegetable is grown to you, the fresher it is going to be. This is without a doubt the most appetizing question I have ever written.
- 2. The answer is false. Most of the bugs living in your garden help your plants to grow big and strong. If you are having a problem with bugs in your garden, you probably have an imbalance of fauna or soil nutrients. The more insects and other animals in your garden, the less likely the bad ones will survive. Dragonflies are a good example. Dragonflies eat mosquitoes. If you have been spraying your garden area for mosquitoes, chances are the spray is killing the dragonflies, butterflies and other good bugs too like spiders.
- 3. The answer is f. If you compost, all of these common household items can be brokendown into rich natural fertilizer that can be used to improve your soil. Composting reduces trash sent to the landfill and reduces the need for chemical fertilizers. Leave out the meat scraps and pet poop. Compost happens - use it to grow a greener garden.
- 4. The answer is false. Container gardens are a great way to slowly develop your green thumb. They require less time and effort to start and are easier to maintain than a full-sized garden. Container gardens are also a terrific way to give a kid a couple of green thumbs.





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